

Allen Cognitive Levels and Modes of Performance and Level of Care

The *Allen Cognitive Scale of Levels and Modes of Performance (Allen Cognitive Scale)* associated with the *Cognitive Disabilities Model (CDM)*^{1,2,3} is used by practitioners to guide interventions with persons who have or are suspected of having cognitive disabilities that impact safe performance of everyday activities. Evaluation and intervention in the CDM focus on *creating a fit* among a person's assets/strengths, including the person's *functional cognitive capacity* described by the Allen Cognitive Scale ("ACL") and other relevant person and contextual factors to optimize safe, satisfying, and successful performance of a person's valued self-care, work, leisure, and social activities^{2,3}. Practitioners use the Allen Cognitive Scale to identify the cognitive complexity of valued activities the person needs and wants to do to determine whether activities are likely to be done safely. When activities do not fit a person's available functional cognitive capacity, practitioners recommend modifications which may include assistance from caregivers, to ensure safety and success. *Typical levels of care* required to ensure safety in common everyday activities at each level/mode of performance on the Allen Cognitive Scale are described in the following document.

Source: Allen, C. K., *Cognitive disability and reimbursement for rehabilitation and psychiatry. Journal of Insurance Medicine*, 23 (4), 1991. Adapted by C.A. Earhart (2023). Copyright ©2023 ACLS and LACLS Committee. Used with permission.

References

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- ²McCraith, D. B., & Earhart, C.A. (2018). Cognitive Disabilities Model: Creating fit between functional cognitive abilities and cognitive activity demands. In N. Katz and J. Togli (Eds.), *Cognition, occupation, and participation across the lifespan: Neuroscience, neurorehabilitation, and models of intervention in occupational therapy* (4th ed., pp. 469-497). AOTA Press.
- ³Earhart, C. A., McCraith, D. B., & Riska-Williams, L. (2022). *Manual for Version 5 of the Allen Cognitive Level Screen* (2nd ed.). ACLS and LACLS Committee/Allen Cognitive Group.

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0.8: Generalized Reflexive Actions

Level 1: Automatic Actions

Global functional cognition is *profoundly impaired*. The person responds to internal cues only. A change in level of arousal is a specific response to an external stimulus that produces pain or has an instinctive survival value. *Total Assistance* is needed when practitioners introduce external stimuli that elicit automatic actions such as swallowing or looking toward auditory stimuli.

1.0: Withdrawing from Noxious Stimuli

24-hour nursing care for artificial feeding and turning to maintain skin integrity

1.2 Responding to Stimulation

24-hour nursing care for artificial feeding and turning to maintain skin integrity

1.4: Locating Stimulation

24-hour nursing care to feed regular diet and initiate rolling in bed for skin care

1.6 Rolling in Bed

24-hour nursing care to feed regular diet and initiate rolling in bed for skin care

1.8: Raising Body Part

24-hour nursing care to place cup/spoon in hand and sustain eating, and to establish route for voiding/bathing

Level 2: Postural Actions

Global functional cognition is *severely impaired*. The person's awareness is limited to their postural actions (proprioceptive cues) to move the body in space or overcome effects of gravity. There is a lack of awareness of the effects that actions have on objects or other people.

Maximum Assistance is needed when practitioners demonstrate actions or use proprioceptive stimulation to elicit postural actions.

2.0 Overcoming Gravity and Sitting

24-hour nursing care to transfer from bed to chair, provide food, and do bathroom activities

2.2 Righting Reactions and Standing

24-hour nursing care to prevent standing if unable to weight-bear, transfer on sliding board or a pivot transfer, provide food, and do bathroom activities

2.4 Walking

24-hour nursing care to initiate and assist with all activities of daily living and to prevent wandering and getting lost

2.6 Walking to a Location

24-hour nursing care to restrict walking to even surfaces in safe locations such as a room, building, or yard

2.8: Using grab bars

24-hour nursing care to stabilize grab bars, rails, furniture, point out stairs, edge of bathtub, provide food and bathe

Level 3: Manual Actions

Global functional cognition is *severely impaired*. The person performs spontaneous manual actions in response to tactile cues. Repetitive actions demonstrate an awareness of material objects but lack of awareness of cause and effect, end product, or goal. Attention span is short (maximum 30 minutes) and actions are unpredictable.

Moderate Assistance is needed when practitioners re-focus attention to sustain/complete simple, repetitive actions safely. One-to-one assistance is required to halt perseveration and to prevent unsafe, erratic, or unpredictable actions.

3.0 Grasping Objects

24-hour nursing care to elicit habitual motions for activities of daily living and to complete motions for an acceptable level of hygiene

3.2 Distinguishing Objects

24-hour nursing care to place objects needed to do the activities of daily living in front of person and to complete motions for an acceptable level of hygiene

3.4 Sustaining Actions on Objects

Close supervision to place objects needed to do activities of daily living in front of person and sequence through the necessary steps to achieve acceptable results.

3.6 Noting Effects on Objects

Close supervision to provide the materials needed for activities of daily living, to remind person to finish necessary steps, to check results, and to remove access to dangerous objects

3.8 Using All Objects

Close supervision to get materials out that are needed to do activities of daily living, to check results, and to remove dangerous objects

Level 4: Goal-Directed Actions

Global functional cognition is *moderately impaired*. The person is aware of tangible cues (see and touch) and understands visible cause-and-effect relationships. Their goal-directed actions reflect their awareness of a familiar end-product but they fail to solve new problems, anticipate, or correct mistakes. There is no independent new learning and they cannot invent new motor actions. They do not recognize errors unless these are clearly visible, and may request help when mistakes are noticed. Attention span is usually good for up to one hour.

Minimum Assistance is needed when practitioners set up goal-directed activities with tangible results. Help is needed to correct repeated mistakes, to check for compliance with established safety procedures, and to solve problems presented by unexpected hazards. Extensive, situation specific training is required to learn new activities, with no expectation for generalization of learned techniques.

4.0 Sequencing Familiar Actions

Close supervision to remove dangerous objects and solve any problems occurring through minor changes in routine. The person may fix themselves a cold meal or snack and make small purchases in the neighborhood.

4.2 Differentiating Features of Objects

Close supervision to remove dangerous objects outside of the visual field and to solve any problems arising from minor changes in the environment. The person may spend a daily allowance, walk to familiar locations in the neighborhood, or follow a simple, familiar bus route.

4.4 Completing a Goal

The person may live with someone who does a daily check on the environment and removes any safety hazards and solves new problems. The person may be left alone for part of the day with a procedure for obtaining help by phone or from a neighbor. May manage a daily allowance and go to familiar places in the neighborhood.

4.6 Personalizing Features of Objects

The person may live alone with daily assistance to monitor personal safety. May manage a daily allowance. Bills and other money management concerns require assistance. The person may require reminders to do household chores, to attend familiar community events, or to do anything in addition to a daily household routine.

4.8 Learning by Rote Memorization

The person may live alone with daily assistance to monitor safety and check problem-solving methods. The person may get to a regularly scheduled community activities or succeed in supportive employment with a job coach.

Level 5: Exploratory Actions

Global functional cognition is *mildly impaired*. The person is able to learn new ways of doing things through overt, trial-and-error problem solving. The person detects the best effect by exploring distinctive properties of objects and trying different actions. They exercise poor judgment without apparent planning new actions or anticipating potential mistakes. They may make hasty or impulsive decisions or make abrupt changes in their course of action. The determination of what is best may be made according to personal preferences or social standards. The person can imitate a series of new directions; new learning is recognized and repeated during the process of doing an activity. *Standby Assistance* is needed when practitioners adapt a new activity for safe and effective performance because errors and a need for safety precautions are not always anticipated. Persons may also need memory and planning aids to effectively function at a desired standard.

5.0 Comparing and Varying Actions and Objects

The person may live alone with weekly checks to monitor safety and check problem-solving methods. They may succeed in supportive employment with a job coach and get to regularly scheduled valued community activity.

5.2 Discriminating Among Sets of Actions and Objects

The person may live alone with weekly checks to monitor safety and examine potentially dangerous effects of impulsive behavior. Person may succeed in supportive employment with a job coach and participate in highly valued community events.

5.4 Self-directed Learning

The person may live alone and work in a job with a wide margin of error. The person may not be safe in jobs with a high potential for industrial accidents.

5.6 Considering Social Standards

The person may respond to supervision that identifies hazards occurring as secondary effects of their actions. The person may be relied upon to follow standard safety precautions consistently.

5.8 Consulting with Others

The person may benefit from assistance in planning for the future. They may benefit from concrete discussion of potential complications such as fatigue, joint protection, functional positioning, etc.

Level 6: Planned Actions

No global functional cognitive impairment. The person anticipates errors and plans actions to prevent errors in novel tasks. Attention span is defined by desires and priorities. The person pays attention to and uses spoken/written instructions and information from diagrams, charts, and models. Spontaneous motor actions are preceded with a pause to think. Verbal instructions of new procedures can be given by supervisors without a demonstration. The person considers new information, imagines and reflects on possibilities, and exhibits original approaches to task performance. Trial-and-error problem solving may be covert, and “good judgment” is demonstrated.

No supervision required. The practitioner serves as a collaborative consultant in the intervention process, e.g., providing new information to adjust to a physical disability. New motor learning can be done safely and consistently. Hazardous situations are anticipated and avoided, or help is sought when needed. Mobility, communications, and maintenance of adaptive equipment is self-monitored.

6.0 Planning without Objects

The person may consider several hypothetical plans of action and establish abstract criteria for selecting the best course of action to take.